

REMARKS

Prior to this Reply, Claims 1-9, 11, 13, 14, 17-25 and 27-41 were pending. Through this Reply, no claims have been amended, cancelled or added. Accordingly, Claims 1-9, 11, 13, 14, 17-25 and 27-41 are now at issue in the present case.

I. Allowable Subject Matter

Applicants note, with thanks, that the Examiner has indicated that Claims 1-9, 23-25, 27, 28 and 32-41 have been allowed. Applicants have not amended such claims. Accordingly, Applicants still believe that such claims are allowable.

In addition, the Examiner objected to Claim 20 as being dependent upon a rejected base claim. The Examiner indicated that Claim 20 would be allowable if it was rewritten in independent form to include the limitations of its base claim and any intervening claims. Instead of rewriting Claim 20 in independent form, Applicants offer the arguments presented below.

II. Rejection Under 35 U.S.C. § 103(a)

The Examiner rejected Claims 11, 13-14, 17-19, 21, 22 and 29-31 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,668,679 to Swearingen et al. (hereinafter “Swearingen”) in view of U.S. Patent No. 6,476,995 to Liu et al. (hereinafter “Liu”). Applicants respectfully traverse the Examiner’s rejection.

Claim 11 requires the steps of: “generating a spiral profile...” and “positioning a transducer over the disk surface using the servo track writer in a closed-loop manner, so that the transducer follows the spiral profile.” Applicants believe that the combination of Swearingen and Liu fails to disclose the above-quoted limitations.

As the Examiner admits, Swearingen fails to disclose positioning a transducer over a disk surface using a servo track writer in a closed-loop manner as claimed (page 3 of Office Action of January 6, 2005). The Examiner relies on Liu to provide the missing limitation. Specifically, the Examiner cites the paragraph in Liu which bridges Col. 2 and Col. 3. Such paragraph states:

In order to ensure proper writing of servo information, STWs utilize an external, closed loop positioning system that precisely positions the transducer head during servo track writing. The positioning comprises a contact member that engages the actuator assembly, a position indicator which indicates the position of the contact member, and a displacing mechanism which repositions the contact member based on feedback from the position indicator. To ensure accurate positioning, various position indicators are used (e.g., mechanical, capacitive, and optical transducers to name a few). The STW further includes the required circuitry for writing the servo information to the disc surface via the transducer heads.

Noticeably absent from the quoted paragraph is any mention of “positioning a transducer over the disk surface using the servo track writer in a closed-loop manner, so that the transducer follows [a] spiral profile” (emphasis added) as required by Claim 11. Instead, Liu is concerned with writing concentric servo information to a disk surface (see, e.g., Col. 5, lines 15-16). The manner in which Liu writes such concentric servo information is generally similar to that discussed in the background of the invention section of the present application. Nowhere does Liu mention that its “closed-loop” servo track writer can be used to write servo information in spiral patterns as required by Claim 11.

For at least the above reasons, Applicants submit that Claim 11 is patentably distinguishable from Swearingen and Liu, both alone and in combination. For at least the same reasons, Applicants submit that Claims 13, 14 and 17-22 (which depend directly or indirectly from Claim 11) are also patentably distinguishable from Swearingen and Liu, both alone and in combination. Furthermore, for reasons similar to those provided in connection with Claim 11,

Applicants submit that Claims 29 and 31 are patentably distinguishable from Swearingen and Liu, both alone and in combination.

In addition, Applicants submit that there is a lack of suggestion or motivation to combine Swearingen and Liu. As set forth in MPEP § 2143.01, “Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.”

Swearingen discloses a non-invasive servowriter. In particular, the servowriter eliminates the need for physical insertion of either an external control arm or a dedicated clock head into the target disk drive prior to or during servowriter operation. More specifically, Swearingen states the following from Col. 2, line 64 to Col. 3, line 10:

A general object of the invention is to provide a non-invasive servowriter for writing embedded servo information on the disk media contained in a magnetic recording disk drive.

A more particular object of the present invention is to provide a servowriter that eliminates the need for the physical insertion of either an external control arm or a dedicated clock head into the target disk drive prior to or during servowriter operation.

Another object of the invention is to avoid both the large capital costs required for procuring a laser based servowriter and the large operating costs associated with providing a clean room operating environment for operation of a laser based servowriter.

In contrast, Liu discloses an invasive servo track writer that requires physical access to the internal environment of the disk drive (see, e.g., Col. 7, lines 20-31). Furthermore, the servo track writer of Liu (in its preferred embodiment) is laser based (see, e.g., Col. 7, lines 52-57).

In view of the above, it is clear that modifying Swearingen using Liu would render Swearingen unsatisfactory for its intended purpose. As set forth in MPEP § 2143.01, “[i]f

proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.”

Accordingly, Applicants submit that the requisite suggestion or motivation to combine Swearingen and Liu is missing.

Even further, in light of the above, Swearingen teaches away from using a servo track writer like that described in Liu. As set forth in MPEP § 2146, “it is improper to combine references where the references teach away from their combination.”

For at least the above reasons, Applicants submit that Claim 11 and the claims that depend therefrom (i.e., Claims 13, 14 and 17-22) are patentably distinguishable from Swearingen and Liu, both alone and in combination. For similar reasons, Applicants believe that Claims 29, 30 and 31 are patentably distinguishable from Swearingen and Liu, both alone and in combination.

III. Additional Claim Fees

In determining whether additional claim fees are due, reference is made to the Fee Calculation Table (below).

Fee Calculation Table

	Claims Remaining After Amendment		Highest Number Previously Paid For	Present Extra	Rate	Additional Fee
Total (37 CFR 1.16(c))	36	Minus	36	= 0	x \$50 =	\$ 0.00
Independent (37 CFR 1.16(b))	10	Minus	10	= 0	x \$200 =	\$ 0.00

As set forth in the Fee Calculation Table (above), Applicants previously paid claim fees for thirty-six (36) total claims and for ten (10) independent claims. Accordingly, Applicants believe that no additional claim fees are due. Nevertheless, the Commissioner is hereby

authorized to charge Deposit Account No. 50-2198 for any additional claim fees, along with any fee deficiencies associated with filing this paper.

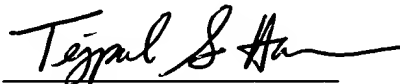
IV. Conclusion

It is believed that the above comments establish patentability. Applicants do not necessarily accede to the assertions and statements in the Office Action, whether or not expressly addressed.

Applicants believe that the application appears to be in form for allowance. Accordingly, reconsideration and allowance thereof is respectfully requested.

The Examiner is invited to contact the undersigned at the below-listed telephone number regarding any matters relating to the present application.

Respectfully submitted,



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